# Work Order ID 48550

*Friday, June 26, 2009 8:58:11 AM*



**Item ID:** D350-591-213 **Accept** **Setup Start** **Stop**

**Revision ID:** A

**Item Name:** Heli-Access-Step, Short LH

**Start Date:** 7/15/2009 **Start Qty:** 5.00 **Cust Item ID:**

**Required Date:** 7/15/2009 **Req'd Qty:** 5.00 **Customer:**

**Reference:**

**Run Start** **Stop**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| **Draw Nbr** | **Revision Nbr** | | | | | | | | |
| D3078 | Rev A | | | | | | | | |
| 100 | DOCUMENT CONTROL | 0.00 | | | | | | | |
| DC | **Memo** | 0.00 | | | | | | | |
| Document Control | Photocopy bluefile and type labels as per PPP D350-591-213 CHG002 | | | | | | | | |
| 110 | Large Fab | 0.00 | | | | | | | |
| Large Fab | **Memo** | 0.00 | | | | | | | |
| Large Fab | 1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078 □2-Drill extrusion as per Dwg D3078 using Jig DT8680 for rivets.□3-Deburr | | | | | | | | |
| 120 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| QC | **Memo** | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

B#46910

SAD 09-07-01

-S 09/07/01 (45)

# Work Order ID 48550

*Friday, June 26, 2009 8:58:11 AM*



**Item ID:** D350-591-213 **Accept** **Setup** **Start** **Stop**

**Revision ID:** A

**Item Name:** Heli-Access-Step, Short LH

**Start Date:** 7/15/2009 **Start Qty:** 5.00 **Cust Item ID:**

**Required Date:** 7/15/2009 **Req'd Qty:** 5.00 **Customer:**

**Reference:**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run** **Start** **Stop**

**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 130 | Large Fab | 0.00 | | | | | | | |
| Large Fab | | | | | | 5 | | | |
| Large Fab | **Memo** | 0.00 | | | | | | | |
| | 1-Bevel end for welding FWD ONLY□2-Weld Support using Jig DT8681, weld Fwd End Plate as per QSI 004 & Dwg D3072□A/RAluminum Rod M110130 M110972 □3-Grind End Plate flush | | | | 09-07-16 | | | | |
| 140 | QC9- Inspect visual per QSI004- Fusion Welds | 0.00 | | | | | | | |
| QC | | | | | DD 09.07.16 | | | | |
| Quality Control | **Memo** | 0.00 | | | | | | | |
| 150 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| QC | | | | | => S 09/07/16 | * | (X54) | 6 | |
| Quality Control | **Memo** | 0.00 | | | | | | | |

# Work Order ID 48550

*Friday, June 26, 2009 8:58:11 AM*



**Item ID:** D350-591-213 **Accept** **Setup Start**

**Revision ID:** A **Stop**

**Item Name:** Heli-Access-Step, Short LH

**Start Date:** 7/15/2009 **Start Qty:** 5.00 **Cust Item ID:**

**Required Date:** 7/15/2009 **Req'd Qty:** 5.00 **Customer:**

**Reference:**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start**

**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop**

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 160 | Chemical Conversion Coat per QSI005 4.1 | 0.00 | | | | | | | |
| HandFinish | Memo | 0.00 | UMD | 09/07/20 | | X5 | | | |
| Hand Finishing | | | | | | | | | |
| 170 | QC3- Inspect Part Finish | 0.00 | | | | | | | |
| QC | BL 09-07-20 Memo | 0.00 | | | | 5 | | | |
| Quality Control | | | | | | | | | |
| 180 | | 0.00 | | | | | | | |
| Large Fab | Large Fab | | | | | | | | |
| Large Fab | Memo | 0.00 | | | | 5 | | | |
| Large Fab | Rivet Leg Assembly as per Dwg D3078. | | | | | | | | |

09.07.20

# Work Order ID 48550

*Friday, June 26, 2009 8:58:11 AM*



**Item ID:** D350-591-213 **Accept** **Setup Start** **Stop**

**Revision ID:** A

**Item Name:** Heli-Access-Step, Short LH

**Start Date:** 7/15/2009 **Start Qty:** 5.00 **Cust Item ID:**

**Required Date:** 7/15/2009 **Req'd Qty:** 5.00 **Customer:**

**Reference:**

**Run Start** **Stop**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 190 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |
| 200 | | 0.00 | | | | | | | |
| Large Fab | Large Fab | | | | | | | | |
| Large Fab | Memo | 0.00 | | | | | | | |
| | 1-Bevel Aft end for welding□2-Inspect for foreign object as per QSI 024□3-Weld Aft End Plate as per QSI 004 & Dwg D3078□A/RAluminum Rod_____□4-Grind End Plate flush | | | | | | | | |
| 210 | QC9- Inspect visual per QSI004- Fusion Welds | 0.00 | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

# Work Order ID 48550

*Friday, June 26, 2009 8:58:11 AM*



**Item ID:** D350-591-213
**Revision ID:** A
**Item Name:** Heli-Access-Step, Short LH
**Start Date:** 7/15/2009 **Start Qty:** 5.00
**Required Date:** 7/15/2009 **Req'd Qty:** 5.00
**Reference:**

**Accept**

**Setup Start**
**Stop**

**Cust Item ID:**
**Customer:**

**Run Start**
**Stop**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 220 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |
| 230 | Chemical Conversion Coat per QSI005 4.1 | 0.00 | | | | | | | |
| HandFinish | Memo | 0.00 | | | | | | | |
| Hand Finishing | | | | | | | | | |
| 240 | White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum | 0.00 | | | | | | | |
| Powdercoat | Memo | 0.00 | | | | | | | |
| Powder Coating | START TIME: 11:30 ☐OVEN TEMPERATURE: 320° ☐FINISH TIME: 12:26 | | | | | | | | |

2) S 07/07/21 * x54 ϕ

5xLH MR 09/07/22

5LH DR 09-07-23

# Work Order ID 48550

*Friday, June 26, 2009 8:58:11 AM*



**Item ID:** D350-591-213
**Revision ID:** A
**Item Name:** Heli-Access-Step, Short LH

**Accept**

**Setup Start**
**Stop**

**Start Date:** 7/15/2009 **Start Qty:** 5.00
**Required Date:** 7/15/2009 **Req'd Qty:** 5.00
**Reference:**

**Cust Item ID:**
**Customer:**

**Run Start**
**Stop**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 250 HandFinish Hand Finishing | ~~Pressure Wash per QS1005-4.3~~ Wing Walk M111013 Memo | 0.00 0.00 | 09/07/24 09-09-25 | | W X1 | | | | |
| 260 QC Quality Control | QC3- Inspect Part Finish Memo | 0.00 0.00 | | | | | | | |
| 270 Packaging Packaging | Pick Kit Memo | 0.00 0.00 | | | | | | | |

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: D350-591-213 PAR #: N/A Fault Category: Finish NCR: (Yes) No DQA: [illegible] Date: 09.08.05

Resolution: Re-work Disposition: Re-work QA: N/C Closed: [illegible] Date: 08.08.19

| NCR: 48550 | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| 9/7/27 | # 250 | After Powder coating it was found on Qty #1 step a yellow mark come through the Powder coat. | [illegible] QSIC12 | - Scuff area with 320 grit sand paper lightly. → Re glazing as per QS7005 | BR 09-07-27 BR 09-07-27 | [illegible] 09/07/27 | [illegible] QSIC12 | [illegible] 09/07/27 |
| | | R.C. Step was not properly cleaned. | [illegible] QSIC12 | → Re Powder coat as per QS7005 | BR 09-07-27 | [illegible] 09/07/27 | [illegible] QSIC12 | [illegible] 09/07/27 |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

# Work Order ID 48550

*Friday, June 26, 2009 8:58:11 AM*



**Item ID:** D350-591-213
**Revision ID:** A
**Item Name:** Heli-Access-Step, Short LH

**Accept**

**Setup Start**
**Stop**

**Start Date:** 7/15/2009 **Start Qty:** 5.00
**Required Date:** 7/15/2009 **Req'd Qty:** 5.00
**Reference:**

**Cust Item ID:**
**Customer:**

**Run Start**
**Stop**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Draw Number | Draw Rev. | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 280 QC Quality Control | QC4- 100% Inspect kits for completeness | 0.00 | => Sor/ 4/ 2s | | | 45 LM | ϕ | | |
| | Memo | 0.00 | | | | | | | |
| 290 Packaging Packaging | Packaging | 0.00 | | | | 09/7/29 | (5) | | |
| | Memo | 0.00 | | | | | | | |
| | Identify and pack for shipping as per PPP D350-591-213 □Location:_____ □PPP Rev: B | | | | | | | | |
| 300 QC Quality Control | QC21- Final Inspection - Work Order Release | 0.00 | 09/07/29 | | | 29-07-09 | | | |
| | Memo | 0.00 | | | | | | | |

# Picklist Print

*Friday, June 26, 2009 8:58:10 AM*



**Work Order ID:** 48550

**Parent Item:** D350-591-213RevA

**Parent Item Name:** Heli-Access-Step, Short LH

**Comments:**

**Start Date:** 7/15/2009 **Required Date:** 7/15/2009

**Start Qty:** 5.00 **Required Qty:** 5.00

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Remaining Qty To Pick | Qty Issued | Date Issued | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS21042L4 Nut | | Purchased | No | | | 110 | Each | 0.0000 | 30.0000 | M110507 (30) | | |
| D2622-120CRevC1 Step Extrusion | | Manufactured | No | | | 130 | Each | 0.0000 | 2.5000 | B46910 | | |
| D3067-1RevA End Plate | | Manufactured | No | | | 130 | Each | 0.0000 | 5.0000 | B48242 | | |
| D3063-1RevA Support | | Manufactured | No | | | 180 | Each | 0.0000 | 5.0000 | B44162 | | |
| D3065-041RevB Step Leg Assembly Hi | | Manufactured | No | | | 180 | Each | 0.0000 | 5.0000 | B48113 | | |
| D3066-1RevB Spacer | | Manufactured | No | | | 180 | Each | 0.0000 | 10.0000 | B48414 | | |
| MS20600-AD4W4 Rivets | | Purchased | No | | | 200 | Each | 0.0000 | 80.0000 | M111477 | | |
| AN3-35A Bolt | | Purchased | No | | | 280 | Each | 0.0000 | 10.0000 | M110467 (10) | | |
| AN4-11A Bolt | | Purchased | No | | | 280 | Each | 0.0000 | 30.0000 | M106605 (30) | | |

# Picklist Print



*Friday, June 26, 2009 8:58:10 AM*

**Work Order ID:** 48550

**Parent Item:** D350-591-213RevA

**Parent Item Name:** Heli-Access-Step, Short LH

**Comments:**

**Start Date:** 7/15/2009 **Required Date:** 7/15/2009

**Start Qty:** 5.00 **Required Qty:** 5.00

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Remaining Qty To Pick | Qty Issued | Date Issued | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AN4-13A x4 Bolt | | Purchased | No | | | 280 | Each | 0.0000 | 20.0000 4x | M111925 (20) | | |
| AN960JD10 x4 Washer | | Purchased | No | | | 280 | Each | 0.0000 | 20.0000 4x | M111668 (20) | | |
| AN960JD416 x12 Washer | | Purchased | No | | | 280 | Each | 0.0000 | 60.0000 12x | M111279 (60) | | |
| D2230-1RevF x2 Lug | | Manufactured | No | | | 280 | Each | 0.0000 | 10.0000 2x | ~~A~~ B48229 (10) | | |
| D2230-3RevF x2 Lug | | Manufactured | No | | | 280 | Each | 0.0000 | 10.0000 2x | 48384 (10) | | |
| D2732RevB1 4x3" x4 Rubber Extrusion | | Manufactured | No | | | 280 | f | 0.0000 | 5.2632 | 43118 | | |
| D2856-400RevA (7-20) x1 Abraison Strip | | Manufactured | No | | | 280 | f | 0.0000 | 3.0000 | 42437 | | |
| D3067-1RevA End Plate | | Manufactured | No | | | 280 | Each | 0.0000 | 5.0000 | ~~N/A~~ B48242 | | |
| MS21042L3 x2 Nut | | Purchased | No | | | 280 | Each | 0.0000 | 10.0000 2x | M105558 (10) | 9/7/28 (S) | |

Date: Friday, 12/06/2009 9:57:02 AM
User: Julie Dawson

# Process Sheet

| | | | |
|---|---|---|---|
| **Customer** | : CU-DAR001 Dart Helicopters Services | **Drawing Name** | : SHORT STEP ASSEMBLY HIGH SKID LH |
| **Job Number** | : 48550 | | |
| **Estimate Number** | : 10575 | | |
| **P.O. Number** | : | **Part Number** | : D350591213 |
| **This Issue** | : 12/06/2009 **S.O. No.** : | **Drawing Number** | : D3078 REV A |
| **Prsht Rev.** | : NC | **Project Number** | : N/A |
| **First Issue** | : / / **Type** : LARGE FAB ASSY | **Drawing Revision** | : A |
| **Previous Run** | : 48147 | **Material** | : |
| **Written By** | : | **Due Date** | : 26/06/2009 **Qty:** 5 **Um:** Each |
| **Checked & Approved By** | : JLD 09.De.12 | | |

**Comment** : Est Rev:B 05.10.14 Modified step 10 KJ/EC
Est Rev:C 06-06-19 Added D2732-030 AS PER DSI9294 JLM
Est Rev:D 06-06-27 Revised as per DSI9340 JLM

**Additional Product**

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 1.0 | DC | DOCUMENT CONTROL |

**Comment:** DOCUMENT CONTROL
Photocopy bluefile and type labels as per PPP D350-591-213 CHG002

| | | |
|---|---|---|
| 2.0 | D2622120C | Step Extrusion |

**Comment:** Qty.: 0.5000 Each(s)/Unit Total : 2.5000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D2622-120C | Extrusion | B76910 |

SAD 09-07-01 (5)

| | | |
|---|---|---|
| 3.0 | LARGE FAB 1 | LARGE FABRICATION RESOURCE 1 |

**Comment:** LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078

2-Drill extrusion as per Dwg D3078 using Jig DT8680 for rivets.

3-Deburr

SA 09-07-01 (5)

| | | |
|---|---|---|
| 4.0 | QC5 | INSPECT WORK TO CURRENT STEP |

**Comment:** INSPECT WORK TO CURRENT STEP

S 09/07/01 (5)

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

**Resolution:** _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Date: Friday, 12/06/2009 9:57:03 AM
User: Julie Dawson

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services **Drawing Name:** SHORT STEP ASSEMBLY HIGH SKID LH

**Job Number:** 48550 **Part Number:** D350591213

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 5.0 | D30671 | End Plate |

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 D3067-1 End Plate 348242
09.07.16 5

| 6.0 | D30631 | Support |
|---|---|---|

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)
Pick:
Qty Part Number Description Batch
1 D3063-1 Support 44162
09.07.16 5

| 7.0 | LARGE FAB 1 | LARGE FABRICATION RESOURCE 1 |
|---|---|---|

**Comment:** LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY 09.07.16 5

2-Weld Support using Jig DT8681, weld Fwd End Plate as per QSI 004 & Dwg D3072 09.07.16 5
A/R Aluminum Rod M110130
M110972

3-Grind End Plate flush 09.07.16 5

| 8.0 | QC9 | VISUAL WELDING INSPECTION |
|---|---|---|

**Comment:** VISUAL WELDING INSPECTION AD 09.07.16

| 9.0 | QC5 | INSPECT WORK TO CURRENT STEP |
|---|---|---|

**Comment:** INSPECT WORK TO CURRENT STEP 09/07/16 x5 LH

| 10.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |
|---|---|---|

**Comment:** HAND FINISHING RESOURCE #1
Chemical Conversion Coat as per QSI 005 4.1 UMO 09/07/16 x5

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Date: Friday, 12/06/2009 9:57:03 AM
User: Julie Dawson

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services **Drawing Name:** SH0RT STEP ASSEMBLY HIGH SKID LH

**Job Number:** 48550 **Part Number:** D350591213

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 11.0 | QC3 | INSPECT POWDER COAT/CHEMICAL CONVERSION |

**Comment:** INSPECT POWDER COAT/CHEMICAL CONVERSION 09-07-20 (5)

| 12.0 | D3065041 | Step Leg Assembly Hi |
|---|---|---|

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D3065-041 | Step Leg Assy | 348113 |

09.07.20 5

| 13.0 | D30661 | Spacer |
|---|---|---|

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 2 | D3066-1 | Spacer | 348414 |

09.07.20 5

| 14.0 | MS20600AD4W4 | Rivets |
|---|---|---|

**Comment:** Qty.: 16.0000 Each(s)/Unit Total : 80.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 16 | MS20600AD4W4 | Rivet | M111477 |

09.07.20 5

| 15.0 | LARGE FAB 1 | LARGE FABRICATION RESOURCE 1 |
|---|---|---|

**Comment:** LARGE FABRICATION RESOURCE 1
Rivet Leg Assembly as per Dwg D3078.

09.07.20 5

| 16.0 | QC5 | INSPECT WORK TO CURRENT STEP |
|---|---|---|

**Comment:** INSPECT WORK TO CURRENT STEP 09/07/20 x544

| 17.0 | D30671 | End Plate |
|---|---|---|

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)
Pick:

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D3067-1 | End Plate | 348242 |

09.07.21 5



Form: rprocess

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Date: Friday, 12/06/2009 9:57:03 AM
User: Julie Dawson

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services **Drawing Name:** SHORT STEP ASSEMBLY HIGH SKID LH

**Job Number:** 48550 **Part Number:** D350591213

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 18.0 | LARGE FAB 1 | LARGE FABRICATION RESOURCE 1 |

**Comment:** LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding — 09.07.21 5

2-Inspect for foreign object as per QSI 024 — 09.07.21 5

3-Weld Aft End Plate as per QSI 004 & Dwg D3078 — 09.07.21 5
A/R Aluminum Rod M110130

4-Grind End Plate flush — 09.07.21 5

| | | |
|---|---|---|
| 19.0 | QC9 | VISUAL WELDING INSPECTION |

**Comment:** VISUAL WELDING INSPECTION — BE 09-07-21 5

| | | |
|---|---|---|
| 20.0 | QC5 | INSPECT WORK TO CURRENT STEP |

**Comment:** INSPECT WORK TO CURRENT STEP — S 09/07/21 554

| | | |
|---|---|---|
| 21.0 | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |

**Comment:** HAND FINISHING RESOURCE #1
Touch Up Chemical conversion — M. 09/07/22

| | | |
|---|---|---|
| 22.0 ✓ | POWDER COATING | POWDER COATING |

**Comment:** POWDER COATING
Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME: _____
OVEN TEMPERATURE: _____
FINISH TIME: _____

| | | |
|---|---|---|
| 23.0 ✓ | HAND FINISHING1 | HAND FINISHING RESOURCE #1 |

**Comment:** HAND FINISHING RESOURCE #1
Wing Walk as per Dwg D3078 and QSI 005 4.4



Form: rprocess

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

**Resolution:** _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Date: Friday, 12/06/2009 9:57:03 AM
User: Julie Dawson

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services **Drawing Name:** SHORT STEP ASSEMBLY HIGH SKID LH

**Job Number:** 48550 **Part Number:** D350591213

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 24.0 | QC3 | INSPECT POWDER COAT/CHEMICAL CONVERSION |

**Comment:** Inspect Powder Coat and Wing Walk

| | | |
|---|---|---|
| 25.0 | PACKAGING 1 | PACKAGING RESOURCE #1 |

**Comment:** PACKAGING RESOURCE #1
Pick Packing Kit

| | | |
|---|---|---|
| 26.0 | D22301 | Lug |

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 2 | D2230-1 | Clamp | _____ |

| | | |
|---|---|---|
| 27.0 | D22303 | Lug |

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 2 | D2230-3 | Clamp | _____ |

| | | |
|---|---|---|
| 28.0 | D2732 | Rubber Extrusion |

**Comment:** Qty.: 1.0500 f(s)/Unit Total : 5.2500 f(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 4 | D2732-030(3" LONG) | Rubber Cushion | _____ |

| | | |
|---|---|---|
| 29.0 | D2856400 | Abraison Strip |

**Comment:** Qty.: 0.6000 f(s)/Unit Total : 3.0000 f(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 1 | D2856-400(7.2") | Abrasion Strip | _____ |



Form: rprocess

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

**Resolution:** _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Date: Friday, 12/06/2009 9:57:03 AM
User: Julie Dawson

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services **Drawing Name:** SHORT STEP ASSEMBLY HIGH SKID LH

**Job Number:** 48550 **Part Number:** D350591213

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 30.0 | AN335A | Bolt |

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 2 | AN3-35A | Bolt | _____ |

| | | |
|---|---|---|
| 31.0 | AN411A | Bolt |

**Comment:** Qty.: 6.0000 Each(s)/Unit Total : 30.0000 Each(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 6 | AN4-11A | Bolt | _____ |

| | | |
|---|---|---|
| 32.0 | AN413A | Bolt |

**Comment:** Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)
Bolt
Batch:_____

| | | |
|---|---|---|
| 33.0 | AN960JD10 | Washer |

**Comment:** Qty.: 4.0000 Each(s)/Unit Total : 20.0000 Each(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 4 | AN960JD10 | Washer | _____ |

| | | |
|---|---|---|
| 34.0 | AN960JD416 | Washer |

**Comment:** Qty.: 12.0000 Each(s)/Unit Total : 60.0000 Each(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 12 | AN960JD416 | Washer | _____ |

| | | |
|---|---|---|
| 35.0 | MS21042L3 | Nut |

**Comment:** Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 2 | MS21042L3 | Nut (or -3) | _____ |

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

**Resolution:** _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Date: Friday, 12/06/2009 9:57:03 AM
User: Julie Dawson

# Process Sheet

**Customer:** CU-DAR001 Dart Helicopters Services **Drawing Name:** SHORT STEP ASSEMBLY HIGH SKID LH

**Job Number:** 48550 **Part Number:** D350591213

Job Number:

| Seq. #: | Machine Or Operation: | Description : |
|---|---|---|
| 36.0 | MS21042L4 | Nut |

**Comment:** Qty.: 6.0000 Each(s)/Unit Total : 30.0000 Each(s)
Pick: Packing Kit

| Qty | Part Number | Description | Batch |
|---|---|---|---|
| 6 | MS21042L4 | Nut (or -4) | _____ |

| | | |
|---|---|---|
| 37.0 | QC4 | INSPECT 100% KITS FOR COMPLETENESS |

**Comment:** INSPECT 100% KITS FOR COMPLETENESS

| | | |
|---|---|---|
| 38.0 | PACKAGING 1 | PACKAGING RESOURCE #1 |

**Comment:** PACKAGING RESOURCE #1
Identify and pack for shipping as per PPP D350-591-213
Location:_____
PPP Rev:_____

| | | |
|---|---|---|
| 39.0 | QC21 | FINAL INSPECTION/W/O RELEASE |

**Comment:** FINAL INSPECTION/W/O RELEASE

Job Completion



Form: rprocess

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

**Resolution:** _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

| DESIGN | DRAWN BY | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA | |
|---|---|---|---|
| CHECKED | APPROVED | DRAWING NO.<br>D3078 | REV. A<br>SHEET 1 OF 2 |
| DATE<br>02.09.11 | | TITLE<br>STEP ASSEMBLY, HI SHORT | SCALE<br>NTS |
| A | 02.09.11 | NEW ISSUE | |

DART

A COPY ISSUED

RELEASED 02.09.20

| Part No. | Description | QTY -041 | QTY -042 |
|---|---|---|---|
| **D3078-041** | **Step Assembly, High Short (LH)** | **X** | |
| **D3078-042** | **Step Assembly, High Short (RH)** | | **X** |
| | | | |
| D2622-60 | STEP EXTRUSION | 1 | 1 |
| D3063-1 | SUPPORT | 1 | 1 |
| D3065-041 | LEG ASSEMBLY | 1 | 1 |
| D3066-1 | SPACER | 2 | 2 |
| D3067-1 | END PLATE | 2 | 2 |
| | | | |
| MS20600AD4W4 | RIVET | 16 | 16 |
| | | | |

**GENERAL NOTES:**

1) –041 SHOWN, FOR –042 INSTALL D3063-1 SUPPORT OPPOSITE SIDE
2) WELD PER DART QSI 004
3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
   POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
   BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 48550

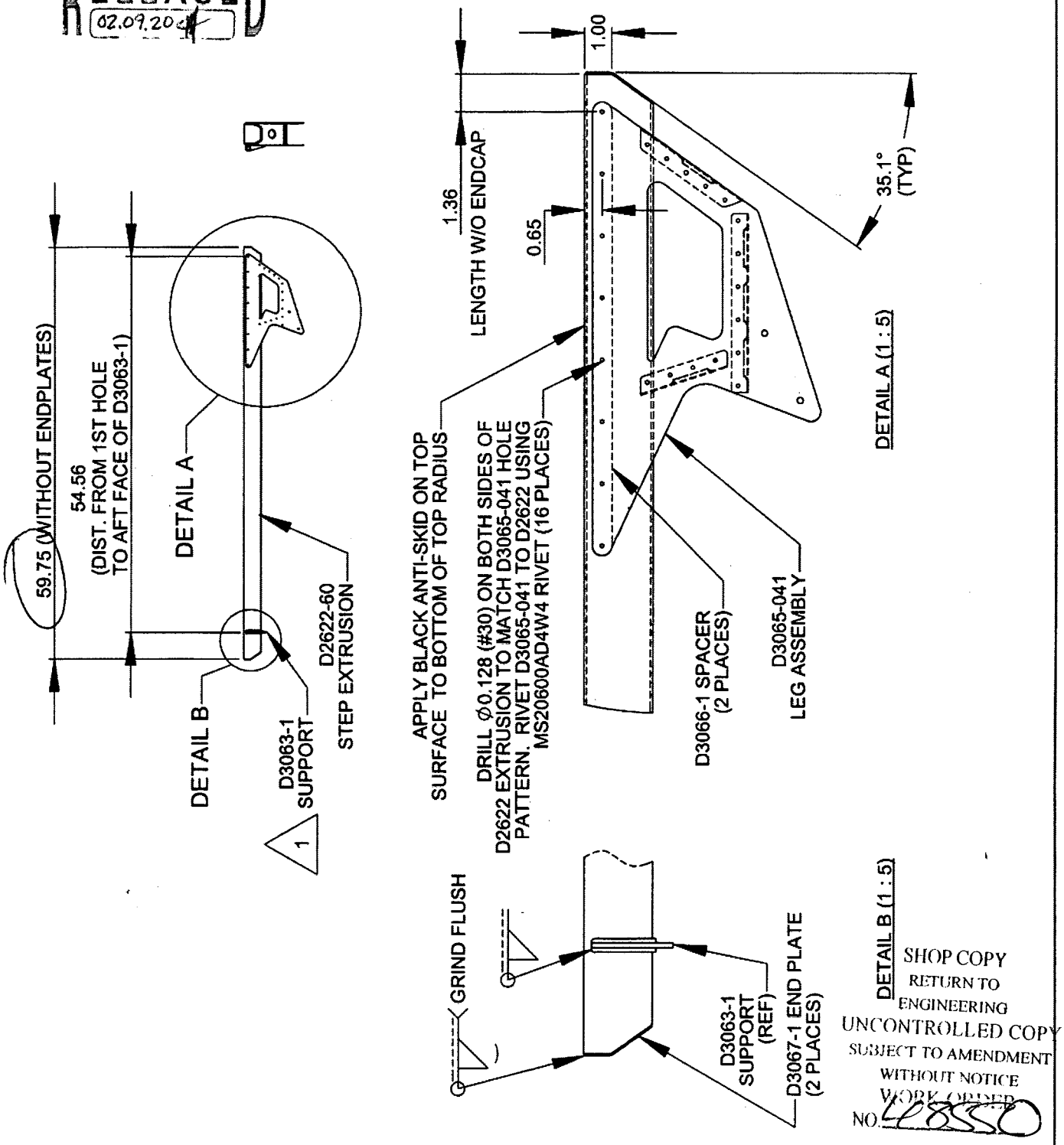
**COPYRIGHT © 2002 BY DART AEROSPACE LTD.**
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

| DESIGN | DRAWN BY | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA | |
|---|---|---|---|
| CHECKED | APPROVED | DRAWING NO.<br>D3078 | REV. A<br>SHEET 2 OF 2 |
| DATE<br>02.09.11 | | TITLE<br>STEP ASSEMBLY, HI SHORT | SCALE<br>1:20 |

DART

QA COPY ISSUED

RELEASED
02.09.2011




SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 68550


**COPYRIGHT © 2002 BY DART AEROSPACE LTD.**

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.